

glass at a low cost. However, such glass is difficult to clean using common household glass cleaners. [Fingerprints] Grease marks, which [are a common] commonly occur on glass surfaces such as picture frames and cathode ray tubes, are especially difficult to remove without special high-strength glass cleaner. Such [speciality] specialty high-strength glass cleaners are not normally available to the general public and are expensive.

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Page 3, beginning on line 6, please amend the paragraph to read as follows:

The present invention provides a high clarity, low reflectivity glass having at least one glass surface including a plurality of islands extending across the surface of the glass. The islands have a density of about 60 to about 10,000 islands per square millimeter, and are about 10 to about 200 micrometers in diameter. The islands extend across the entire surface of the glass in such a distribution that they provide a decreased reflectance of incident light across the surface of the glass. The glass surface also includes a skeletized silica structure extending uniformly over the surface of the glass. The skeletized structure is about 100 to about 400 angstroms has openings of about 100 to about 200 angstroms in diameter uniformly distributed throughout. The density of the skeletized structure is about 50 to about 70 skeletal structures per 200 nanometers square of the glass surface.

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Page 3, beginning on line 15, please amend the paragraph to read as follows:

The preferred process for producing the inventive structure on the surface of a glass generally includes multiple steps. First, a glass member that includes one or more light-reflecting surfaces is provided. At least that surface of the glass member is exposed to an acid solution to remove weathered layers. Then the glass member is rinsed in a neutral solution. Next, the glass

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member is dipped in an aqueous solution containing a strong fluoride ion agent, a weak fluoride ion agent and a moderator. The glass member remains in the aqueous solution for a time period and at a solution temperature sufficient to produce islands on the glass surface. The islands may be distributed at a density of about 60 to about 10,000 islands per square millimeter. The glass is then rinsed with a cleansing solution. These steps produce a diffusion etched surface on the exposed surface of the glass member. Lastly, the diffusion etched surface is immersed in an anti-reflection acid solution. The glass member is immersed for a time sufficient to produce a skeletized silica structure extending uniformly over the surface of the glass . The skeletized structure may be about 100 to about 400 angstroms in diameter and having openings of about 100 to about 200 angstroms in [length] diameter uniformly distributed throughout.

Page 11, beginning on line 14, please amend the paragraph to read as follows:

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Figure 4 illustrates the cross-sectional enlarged view of the glass treated with diffusion etching followed by anti-reflection etching. The glass 1 includes islands 3. In addition, a silica structure 4 comprising skeletonized silica is integral with the diffusion etched surface. The size of the AR structure is about 100 to about 400 angstroms in diameter with openings of about 100 to about 200 angstroms in diameter. While the precise mechanism is not known, it is believed that the islands cause diffusion to occur without distortion. These islands are all larger than the visible wavelengths of light. These properties are believed to be formed because the density of the structure is low, and because the skeletal silica structure actually reduce the reflection and increases the transmission. This is believed to contribute to the high clarity of the glass. The secondary surfaces attains an optimum refractive index of 1.23, with lowest reflection occurring at 1/4 wavelength of green light. Consequently, a combination structure is achieved which optimizes the reflection

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properties of the glass while minimizing distortion. This structure provides for high clarity, which is particularly applicable to use of the glass in picture frames or computer monitor screens.

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Page 12, beginning with line 21, please amend the paragraph to read as follows:

Lastly, Figures 14 and 15 are SEM pictures, taken at 100,000 X magnification, showing the skeletal silica structure, or secondary raised surfaces, and openings, or secondary lowered surfaces, across the glass surface. Figure 14 shows the prior art AR glass surface and Figure 15 shows the AR glass surface of the present invention. A comparison of Figures 14 and 15 illustrate that the size of the skeletal silica structure and the openings in the structure differ. In Figure 14, both the structure and the openings are about 200 to about 600 angstrom in diameter. However, for the present invention, the skeletal structure is about 100 to about 400 angstroms in diameter and the openings are about 100 to about 200 angstrom in diameter. The [granule] density of the skeletal structure is about 30 to about 40 skeletal structures per 200 nanometer square for the prior art, and 50 to about 70 skeletal structures per 200 nanometer square for the present invention. It is believed that the smaller size of both the skeletal structure and the openings and the more densely packed skeletal structure of the preferred embodiment are responsible for keeping grease marks and other contaminates on the glass surface instead of being trapped in the lower surfaces. Thus, since the contaminates are kept on the surface of the glass, the surface can be cleaned with household glass cleaner and with minimal effort.

In The Drawings

Please amend the drawings submitted on March 5, 2002 pursuant to 37 C.F.R. § 1.121 as follows (see the accompanying "marked up" version pursuant to § 1.121):